

CLAIMS

1. A powder paint composition comprising at least

5 (a) a thermosetting polymer having functional groups capable of reacting with  
β-hydroxyalkylamide units

(b) a compound comprising β-hydroxyalkylamide units and

(c) a deceleration agent, capable of reversibly blocking the functional groups  
of polymer (a),

10 wherein the deceleration agent is present in an amount sufficient to block at  
least 9 % of the total amount of functional groups of polymer (a).

2. A powder paint composition according to Claim 1 characterised in that the  
polymer (a) is a carboxylic acid functional polymer or an anhydride functional  
polymer.

3. A powder paint composition according to any one of Claims 1-2, characterised  
15 in that the deceleration agent (c) is a compound according to formula (III)  
and/or (IV):

YR<sup>1</sup>R<sup>2</sup>R<sup>3</sup> ((III))  
or  
(YR<sup>1</sup>R<sup>2</sup>R<sup>3</sup>R<sup>4</sup>)<sup>+</sup>X<sup>-</sup> (IV)

20 wherein:  
Y is N or P,  
R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> or R<sup>4</sup> are independently of each other, substituted or unsubstituted  
carbon chains with 1-50 carbon atoms in the main chain and  
X<sup>-</sup> is halide.

25 4. A powder paint composition according to Claim 3 characterised in that the  
deceleration agent (c) is a compound according to formula (III).

5. A powder paint composition according to any one of Claims 3-4 characterised  
in that Y is N.

30 6. A powder paint composition according to any one of Claims 3-5 characterised  
in that R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are unsubstituted carbon chains.

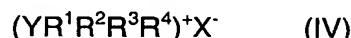
7. A powder paint composition according to any one of Claims 1-6 characterised  
35 in that the deceleration agent is octyldimethylamine, decyldimethylamine,  
dodecyldimethylamine, tetradecyldimethylamine, hexadecyldimethylamine,  
octadecyldimethylamine, hydrogenated tallow alkyl)-dimethylamine and/or  
hexadecyldimethylamine.

8. A process for the preparation of a powder paint composition according to any  
one of Claims 1-7 comprising at least the steps of:

- a) producing a polymer (a) having functional groups capable of reacting with  $\beta$ -hydroxyalkylamide units at the processing temperature  $T_p$ ;
- b) adding a deceleration agent (c) to the polymer at temperature  $T_a$ , wherein  $T_a$  is equal to or lower than  $T_p$  but higher than the  $T_g$  or  $T_m$  of the polymer, in an amount sufficient to block at least 9% of the functional groups of the polymer (a) capable of reacting with  $\beta$ -hydroxyalkylamide units.
- 5
9. A process according to Claim 8, wherein the deceleration agent is added before the polymer is cooled down to below its  $T_g$  or  $T_m$ .
- 10 10. The use of a tertiary compound according to formula (III) and/or (IV):



or



wherein:

15 Y is N or P

$R^1$ ,  $R^2$ ,  $R^3$  or  $R^4$  are independently of each other, substituted or unsubstituted carbon chains with 1-50 carbon atoms in the main chain and  $X^-$  is halide

20 as a deceleration agent in a powder paint composition comprising a  $\beta$ -hydroxyalkylamide compound.

11. A process for curing a powder paint composition according to any one of Claims 1-7 or a powder paint composition obtained by the process according to any one of Claims 8-9 whereby the powder paint composition is first applied to a substrate and then cured.

25